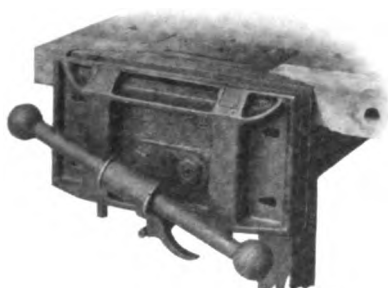


Make Your Manual Training Equipment Conform to Modern Shop Equipment



The Columbian Universal Vise, closed

The best shops today are equipped with Universal Vises. A Universal Vise holds the work *where* you want it and *how* you want it, assuring you better work in less time.

The Columbian Universal Quick-acting Vise should be in every industrial school. It is efficient, convenient, durable—designed by G. M. Yost, the veteran vise-manufacturer of the country, now with the Columbian Hardware Company. The vise is made of cold-rolled steel and gray iron castings.

It conforms to modern shop requirements.

And it is sold at a price that is negligible compared with its efficiency and its educational value.

The Simple Operation of a Universal Vise

The jaw and clamping mechanism are carried in a short cylindrical hub about 3 inches in diameter and 4 inches long. By loosening the sleeve which carries the hub the vise rotates on its screw and can be securely clamped in any position.

The sleeve holding the entire vise is in itself a part of a heavy horizontal hinge. One leaf of this hinge is the bench-



The Columbian Universal in position to hold flat work horizontally. This view shows the clamp that locks the sleeve and controls the rotation of the vise. The rod and clamp controlling the swing are also shown.

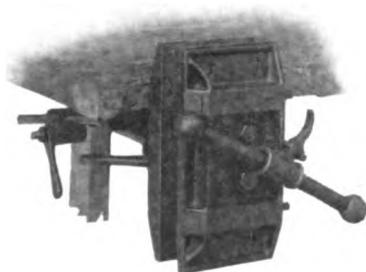
plate for the vise. Just as you turn a hinge, the entire vise can be swung on this joint and placed in any required position. The control is simple. A rod from the sleeve back of

a clamp and hand-nut connection under the bench is the only mechanism.

The combination of these two movements, the rotation of the vise mechanism in the collar and the swinging on the horizontal hinge pivot, make the vise practically universal in operation.

The Columbian Industrial-Special Vise has jaws 12 inches wide by 6 inches high and opens up to 12 inches.

Write for further information.



The Columbian Universal Vise rotated so that the end joints are above the bench level



Fixed at an angle to hold work flat on the bench

The Columbian Hardware Company

Factory and General Offices

CLEVELAND, OHIO

Branches in All Principal Cities